

REMARKS

The claims stand rejected as being directed to non-statutory subject matter. Each of the pending claims defines a method for forming a representation generated by sequential simulation of a stochastic model. The simulation involves a physical quantity in a heterogeneous medium or an underground formation which involves data collected by means of previous measurements and observations. Furthermore, the method recites using the representation to study the heterogeneous medium or the underground formation.

The claims as currently worded are not purely limited to a mathematical model and now broadly recite use of the representation to study the heterogeneous medium or underground formation. Accordingly, it is submitted that the claimed invention has practical real world utility and that each of the claims define statutory subject matter.

In this regard, support for the recitation of use of the representation to study the medium or the underground formation is found in the last paragraph of the Summary of the Invention in the amended specification. Accordingly, it is submitted that claims 7-22 and new claims 27-43 define statutory subject matter.

Cancellation of claims 23-26 moots the rejection thereof.

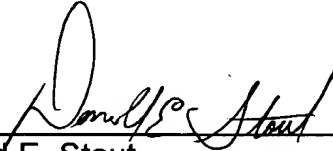
In view of the foregoing amendments and remarks, it is submitted that each of the claims in the application is in condition for allowance. Accordingly, early allowance thereof is respectfully requested.

To the extent necessary, Applicants petition for an extension of time under 37 C.F.R. §1.136. Please charge any shortage in fees due in connection with the

filing of this paper, including extension of time fees, to Deposit Account No. 01-2135 (612.39651X00) and please credit any excess fees to such Deposit Account.

Respectfully submitted,

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A handwritten signature in dark ink, appearing to read "Donald E. Stout", is written over a horizontal line.

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